

"A Phase I Archaeological Survey of the  
Proposed Timber Harvest Areas in the Longstreet  
Range Road Powerline Easement on the Fort  
Knox Military Reservation, Hardin County,  
Kentucky" by Pamela A. Schenian, Fort Knox.  
June 1995.

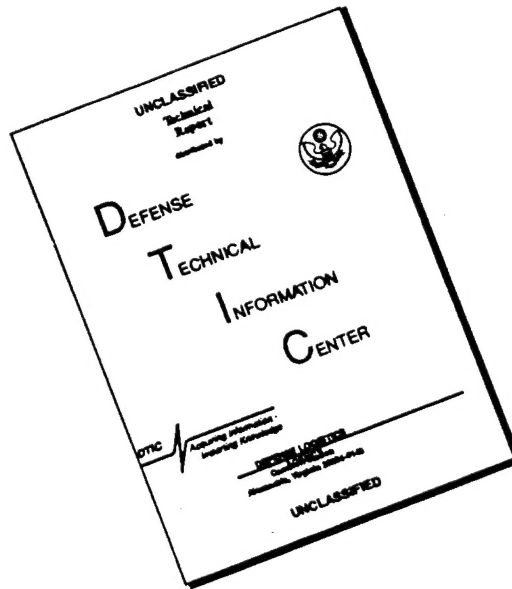
DTIC QUALITY INSPECTED 2

DECLASSIFICATION STATEMENT A

Excluded from automatic  
downgrading and  
declassification

19961025 110

# DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

REPORT DOCUMENTATION PAGE	1. REPORT NO.	2.	3. Recipient's Accession No.
4. Title and Subtitle A Phase I Archaeological Survey of the Proposed Timber Harvest Areas in the Longstreet Range Road Powerline Easement on the Fort Knox Military Reservation, Hardin County, Kentucky			5. Report Date June 1995
7. Author(s) Pamela A. Schenian			6.
9. Performing Organization Name and Address Directorate of Public Works ATTN: ATZK-PWE (Archaeology) U.S. Army Armor Center and Fort Knox Fort Knox, Kentucky 40121-5000			8. Performing Organization Rept. No.
12. Sponsoring Organization Name and Address Directorate of Public Works ATTN: ATZK-PWE (Archaeology) U.S. Army Armor Center and Fort Knox Fort Knox, Kentucky 40121-5000			10. Project/Task/Work Unit No.
			11. Contract(G) or Grant(G) No. (C) DACW65-93-D-0039 (G)
			13. Type of Report & Period Covered Final, May-June 1995
15. Supplementary Notes The Cultural Resource Management office of the Directorate of Public Works is staffed by an outside contractor employed by J.M. Waller Associates, Inc., 9249 Old Keene Mill Road, Burke, VA 22015-4202 (contract DACW65-93-D-0039).			14.
16. Abstract (Limit 200 words)			
<p>In May 1995, the Fort Knox Contract Staff Archaeologist conducted a Phase I archaeological survey of proposed timber harvest areas in a powerline easement adjoining Longstreet Range Road on the Fort Knox Military Reservation, Hardin County, Kentucky. The powerline easement to be harvested is approximately 30 m (100 feet) wide and 4.4 km (4400 m or 14,436 ft) long, encompassing approximately 13 ha (33 acres). Of this, approximately 8 ha (21 acres) was wooded and comprised the area walked in the present survey. Only selected trees, which were marked by Forestry Section personnel prior to the archaeological survey, will be harvested. The survey resulted in the discovery of no archaeological materials or deposits. It is recommended that the timber harvest be conducted as proposed.</p>			
17. Document Analysis a. Descriptors			
b. Identifiers/Open-Ended Terms Fort Knox Hardin County, Kentucky Archaeology			
c. COSATI Field/Group			
18. Availability Statement  Release Unlimited		19. Security Class (This Report) Unclassified	21. No. of Pages iv+11=15
		20. Security Class (This Page) Unclassified	22. Price

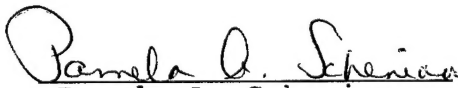
A Phase I Archaeological Survey  
of the Proposed Timber Harvest Areas  
in the Longstreet Range Road Powerline Easement  
on the Fort Knox Military Reservation,  
Hardin County, Kentucky

by Pamela A. Schenian  
Contract Staff Archaeologist

Directorate of Public Works  
U.S. Army Armor Center and Fort Knox  
Fort Knox, Kentucky 40121-5000  
phone: 502-624-6581  
fax: 502-624-3000

DPW Forestry Section Project FY 95-1

June 1995

  
Pamela A. Schenian  
Project Principal Investigator

## ABSTRACT

In May 1995, the Fort Knox Contract Staff Archeologist conducted a Phase I archaeological survey of proposed timber harvest areas in an powerline easement adjoining Longstreet Range Road on the Fort Knox Military Reservation, Hardin County, Kentucky. The powerline easement to be harvested is approximately 30 m (100 feet) wide and 4.4 km (4400 m or 14,436 ft) long, encompassing approximately 13 ha (33 acres). Of this, approximately 8 ha (21 acres) was wooded and comprised the area walked in the present survey. Only selected trees, which were marked by Forestry Section personnel prior to the archaeological survey, will be harvested. The survey resulted in the discovery of no archaeological materials or deposits. It is recommended that the timber harvest be conducted as proposed.

## MANAGEMENT SUMMARY

In accordance with Executive Order 11593 and other applicable federal laws and regulations, a Phase I archaeological study was conducted of a proposed timber harvest project area in a powerline easement adjoining Longstreet Range Road on the Fort Knox Military Reservation, Hardin County, Kentucky. All wooded areas of the easement were inspected, but only a limited number of trees will be cut within these areas. No evidence was found of archaeological materials or of potential archaeological deposits. It is recommended that the timber harvest be conducted as proposed.

## TABLE OF CONTENTS

	<u>Page</u>
Abstract.....	i
Management Summary.....	ii
Table of Contents.....	iii
List of Figures.....	iii
I. Introduction.....	1
II. Previous Research.....	3
III. Survey Predictions.....	4
IV. Setting and Field Methods.....	5
V. Conclusions and Recommendations.....	7
References Cited.....	9
Appendix A. Resume of Principal Investigator .....	10

## LIST OF FIGURES

	<u>Page</u>
Figure 1. Location of Project Area .....	2
Figure 2. Vegetation and Field Methods in Project Area .....	6

## I. INTRODUCTION

In May 1994, the Fort Knox Contract Staff Archaeologist, an employee of J.M. Waller Associates, Burke, Virginia, performed a Phase I archaeological survey of a proposed timber harvest area in a powerline easement. The powerline easement runs adjacent to Longstreet Range Road, beginning approximately 400 m northeast of the junction of Longstreet Range Road and Wilson Road and ending at the north end of Ditto Hill Range at Fort Knox, Hardin County, Kentucky (Figure 1). The powerline easement to be harvested is approximately 30 m (100 feet) wide and 4.4 km (4400 m or 14,436 ft) long, encompassing approximately 13 ha (33 acres). The southernmost 450 m of the project area lies west of Longstreet Range Road, and the remainder of the project area lies east of the road. Disjoint wooded areas ranging in length from approximately 300 m to 800 m exist within the easement, separated by gravel roads or grassy training areas. The wooded areas comprise approximately 8 ha (21 acres), and only wooded areas were walked in the present survey. Only some of the wooded areas contain marketable timber. The trees selected for harvesting had been marked with blue spray paint by the Fort Knox Forestry Section foresters prior to the survey. All wooded areas were inspected, however. Approximately 3 ha (7 acres) of the wooded areas lie within each Hunting Areas 23, 24, and 26.

During 1993, the Fort Knox Contract Staff Archaeologist obtained all the documents necessary to perform Phase I literature searches for the installation (e.g., site forms, reports of previous investigations, historic maps), and these documents are updated on a regular basis. All documents necessary to perform Phase I literature searches for the installation are present at the Cultural Resource Management Branch of the Directorate of Public Works, Fort Knox. No file check therefore was made with the OSA and the Kentucky Heritage Council specifically for this project. A literature search revealed that the project area had not been previously surveyed. Therefore, during the present project the entire area was inspected by walkover or drive-by inspection.

The proposed timber harvest project area is located in the Plain section of the Pennyryle cultural landscape, on the hill and ridge crests and slopes of a dissected upland area. The southwest end of the project area lies at the boundary of an undulating karst plain and the dissected uplands. Elevations in the project area range from 630 to 760 feet. Soils are classified as Crider-Vertrees soil association (U.S.D.A. 1975: General Soil Map).

Drainage in the south half of the project area is into the headwaters of tributaries of the Ohio River, including Tioga Creek, and drainage in the north half of the project

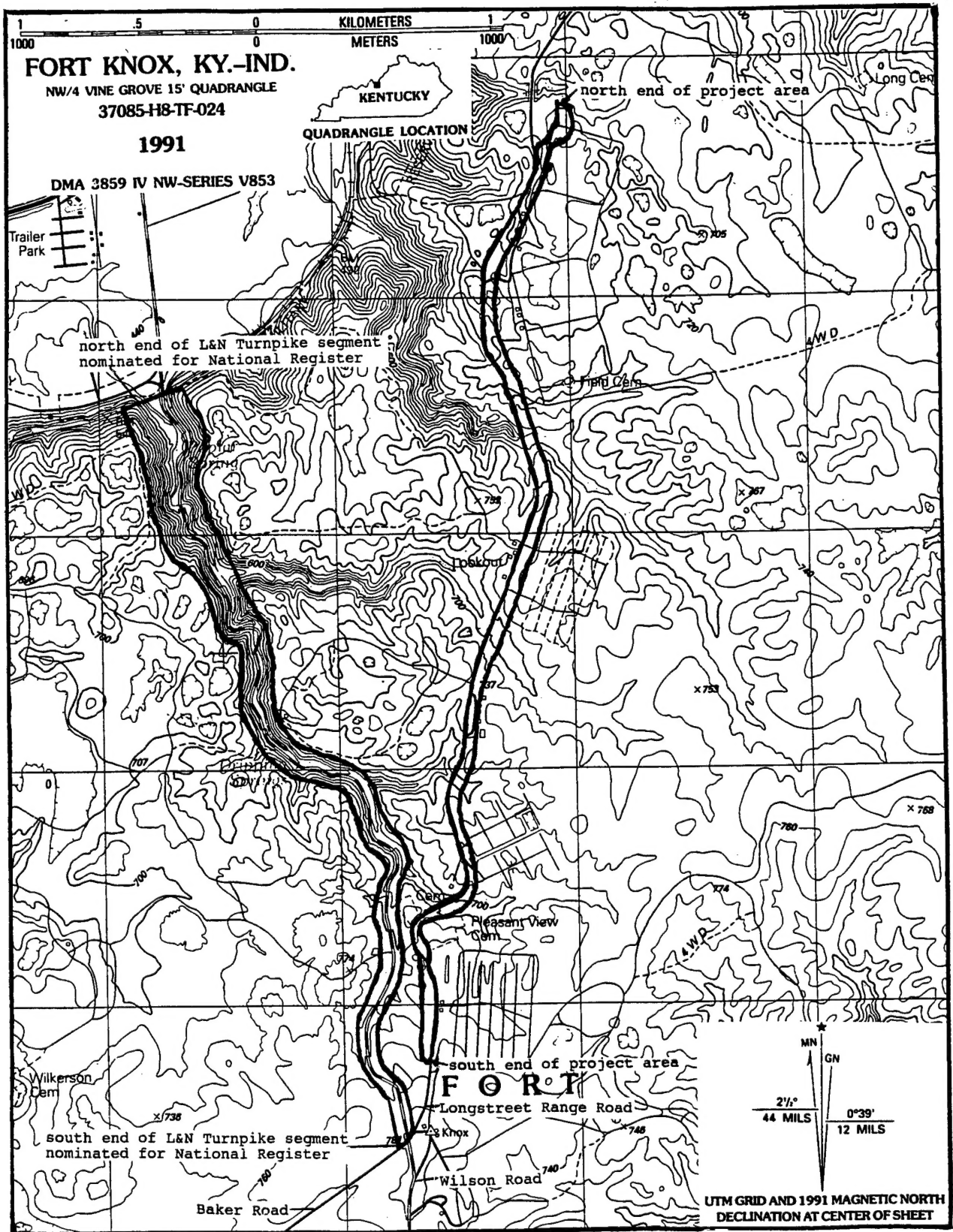


FIGURE 1. Location of Project Area.

area is into the headwaters of tributaries of the Salt River, including Bee Branch. The north end of the project area lies approximately 2.5 km south of the junction of the Salt and Ohio Rivers.

The archaeological survey was conducted in preparation for the removal of selected trees within 30 m of the powerline, which runs adjacent to Longstreet Range Road. The archaeological survey and literature review were required to comply with the National Environmental Protection Act, or NEPA, (Public Law 91-190), the Historic Preservation Act of 1966, as amended (Public Law 89-665), the Archaeological Resources Protection Act of 1979 (Public Law 96-95), Presidential Executive Order 11593, and Army Regulation 420-40. The project number is FY 95-1, an in-house number assigned by the Forestry Section of the Environmental Management Division of the Directorate of Public Works.

The project area was surveyed on May 25 and 30, 1995. A total of 3.0 person hours were spent in the survey of the wooded portions of the powerline easement. No artifacts were observed or collected in this survey. Documentation of this project will be curated at the University of Louisville Program of Archaeology, on a "permanent loan" basis, under contract number DABT 23-93-C-0093, for curatorial and technical support (copy of contract on file, DPW, Fort Knox, Kentucky). Duplicate copies of the documentation will be stored at the Directorate of Public Works (DPW), U.S. Army Armor Center and Fort Knox, Fort Knox, Kentucky.

## II. PREVIOUS RESEARCH

Approximately 26,260 acres of the Fort Knox installation have been surveyed for archaeological sites at some level, primarily in cultural resource management (CRM) studies. Schenian and Mocas (1994) summarize the archaeological studies conducted on or near the installation through August 1994. This section will focus on the previous research conducted within a 2 km radius of the current project area.

No portion of the project area had been previously surveyed, however, a number of areas around it had been surveyed. O'Malley et al. (1980) surveyed approximately one-quarter of each of Hunting Areas (HA) 17-21, 23, and 24 near the current project area. O'Malley et al. recorded 15Hd275 in HA 17, 15Hd127 and 15Hd133 in HA 18, 15Hd118 and 15Hd244 in HA 21, 15Hd212 in HA 23 and 15Hd228 in HA 24, and no sites in the portions surveyed of HA 19 and 20. All of these sites lie greater than 1 km from the current project area.

Hemberger (1991) surveyed a 23 acre tract within HA 17, recording 15Hd461, approximately 240 m west of the current project area. Hemberger (1992) surveyed a 7 acre tract in HA

24 approximately 400 m east of the current project area, encountering no sites. Schenian (1991) surveyed a 67 acre tract in HA 17, recording a historic archaeological site, 15Hd459, which is considered potentially eligible for the National Register and which lies approximately 80 m west of, and on the opposite side of the road from, the current project area. Sussenbach surveyed three one-acre tracts in HA 21 and 23, recording one isolated find. Mocas (1993) described the results of the survey of a proposed landfill and borrow pit tract, lying approximately 1 km southwest of the south end of the project area, and in which no archaeological sites were encountered. Schenian (in prep.) describes the results of the survey of a portion of HA 20, in which 15Hd496 was located. This historic site, which is not considered eligible for the National Register, lies approximately 0.7 km southwest of this south end of the project area.

No archaeological sites listed on or eligible for listing on the National Register of Historic Places are located in or immediately adjacent to the current project area. No buildings listed on or known to be eligible for the National Register are located in or within the viewshed of the current project area. The south end of the L&N Turnpike segment which was nominated to the National Register in 1994 lies approximately 400 m south of the south end of the project area, at the intersection of Wilson Road and Baker Road. The closest the project area gets to the L&N Turnpike is approximately 200 m.

Two cemeteries, the Pleasant View Cemetery and the Field Cemetery, lie near the project area. No trees were marked for timber harvest in the narrow woods which lie between Pleasant View Cemetery and Longstreet Range Road. The Field Cemetery lies approximately 200 m east of the project area.

### III. SURVEY PREDICTIONS

Based on previous archaeological research in the area, the history of settlement, and the environmental setting of the project area, the following results were expected:

- 1) The wooded areas proposed for timber harvesting lie within 30 m of Longstreet Range Road and near an existing powerline. The project area is therefore expected to have some disturbance due to road construction and maintenance, powerline installation, erosion, and possibly training.
- 2) All portions of the project area lie within the section of the installation acquired by 1919. The 1919 Camp Knox land acquisition map indicates that the project area encompasses portions of 10

former properties. The locations of the structures at the time of acquisition are known, and none lie in or immediately adjacent to the project area. There is therefore little or no chance that structural ruins associated with these historic properties will occur in the project area, and the distance of the known structures from the project area makes the likelihood of associated artifacts slim as well.

- 3) There are several ridge tops or upper slopes overlooking drainages within the project area. These are considered high probability areas for prehistoric habitation and processing sites.
- 4) Previous surveys in the project vicinity have yielded a very low site density for this portion of the base. A low site density is expected for the current project area.

#### IV. SETTING AND FIELD METHODS

The proposed powerline easement is located in the Plain section of the Pennyrile cultural landscape. The project area lies in the Mississippian Plateau physiographic region of Kentucky (McGrain and Currens 1978:35) on the tops and slopes of the dissected upland ridges, near the boundary with an undulating karstic plain. Elevations in the project area range from 630 to 760 feet. Drainage in the south half of the project area is into the headwaters of tributaries of the Ohio River, including Tioga Creek, and drainage in the north half of the project area is into the headwaters of tributaries of the Salt River, including Bee Branch. The north end of the project area lies approximately 2.5 km south of the junction of the Salt and Ohio Rivers. Soils are classified as Crider-Vertrees soil association (U.S.D.A. 1975: General Soil Map), and consist of alternating areas of Crider silt loam (primarily on ridge slopes) and Nicholson silt loam (primarily on ridge tops) (Arms et al. 1979: Maps 1 and 2).

The wooded portions of the project area were systematically walked in two transects spaced approximately 10 m apart, with the first transect placed approximately 10 m in from the road (Figure 2). Ground surface visibility was variable in the wooded areas. Near the entrance to Ditto Range, the wooded areas consisted of scattered large trees with closely cropped mowed grass, and ground surface visibility of 50 percent or more. In the other wooded areas, the understory consisted primarily of scattered spindly weeds and saplings, with some brambles and vines near the road margin. Fallen leaf cover was present, however, recent very heavy rains and high winds had washed or blown away this

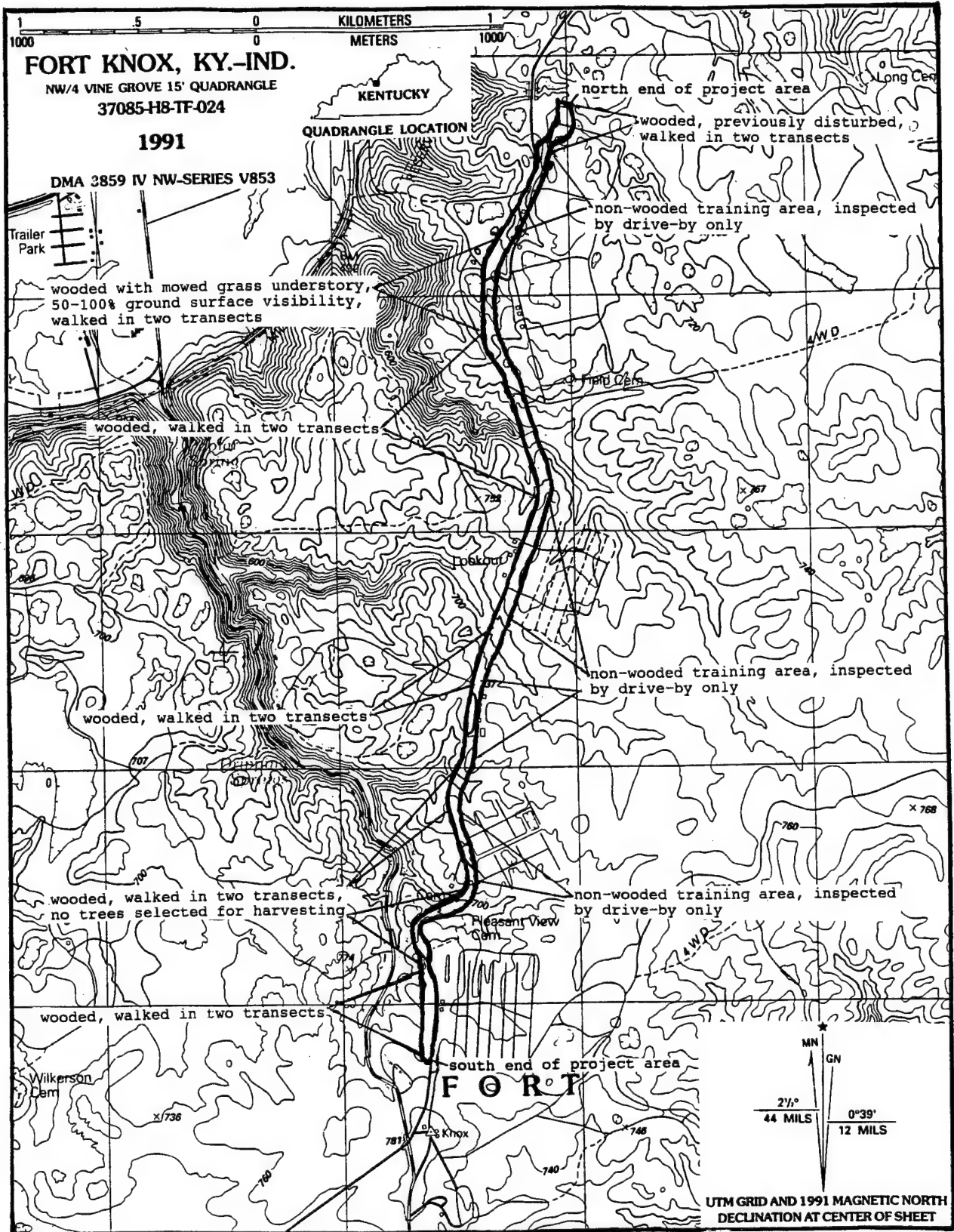


FIGURE 2. Vegetation and Field Methods in Project Area.

cover from many areas. Areas of open ground up to 3 m in diameter were not uncommon, and smaller areas with 100 percent ground surface visibility occurred at irregular intervals of approximately 5 to 10 m. The effective visibility in sections of the project area was increased by zigzagging within the transect corridor to take advantage of the 100 percent ground surface visibility along deer paths, around tree driplines, around animal burrows, along creek banks, and in erosional gullies. All open areas in high probability areas for prehistoric sites (i.e., ridge tops and upper slopes) were carefully examined.

If the ground surface had been obscured by vegetation for greater than 10 m within a transect, then a shovel probe would have been excavated and the fill trowel sorted. The only areas which were encountered in which the ground surface was obscured for any distance also had clearly been heavily disturbed by road construction, tank training, and bulldozer clearing of vegetation in the past. Due to the obvious disturbance in these more densely vegetated areas and due to the lack of evidence for archaeological deposits in the open or less densely vegetated areas, no shovel proving was conducted in this project.

#### V. CONCLUSIONS AND RECOMMENDATIONS

The Phase I literature search of the proposed timber harvesting of the powerline easement adjacent to Longstreet Range Road determined that the project area had not been previously inspected. The wooded areas of the easement were field inspected in the current study. The inspection of this area resulted in the discovery of no archaeological materials or deposits. It is recommended that the installation be permitted to harvest timber in the powerline easement as proposed.

Two cemeteries, the Pleasant View Cemetery and the Field Cemetery, lie near the project area. No trees were marked for timber salvage in the narrow woods which lie between Pleasant View Cemetery and Longstreet Range Road. The Field Cemetery lies approximately 200 m east of the project area. No impact to either of these cemeteries is expected as a result of the proposed timber harvest.

Access to all portions of the project area is available from Longstreet Range Road, which is a paved or gravel road, depending on the section. Because timber harvest activities cannot disturb the existing non-wooded built-up training areas, access to each section of woods will be from Longstreet Range Road, rather than off-road access along the easement. No impact to any significant cultural resource is therefore expected as a result of the movement of vehicles to be used in this project.

In the remote possibility that archaeological materials are discovered during the timber harvesting, all work in the vicinity of the finds must cease and the State Historic Preservation Officer (502-564-7005) and the DPW Staff Archaeologist (502-624-6581 or 502-624-3629) should be contacted, so a representative of those agencies may evaluate the materials. Also, if human remains, regardless of age or cultural affiliation, are discovered, all activity in the vicinity of the remains must cease immediately, and the state medical examiner (502-564-4545) and the appropriate local law enforcement agency (Fort Knox Law Enforcement Command, 502-624-6852) must be contacted, as stipulated in KRS 72.020.

## REFERENCES CITED

Arms, Fred S., Michael J. Mitchell, Frank C. Watts, and  
Byron L. Wilson

- 1979 Soil Survey of Hardin and Larue Counties, Kentucky.  
U.S. Department of Agriculture, Washington, D.C.

Hemberger, Jan Marie

- 1991 An Archaeological Reconnaissance of Proposed Construction Sites for Fort Dix Realignment at Fort Knox Military Reservation, Bullitt and Hardin Counties, Kentucky. U.S. Army Corps of Engineers, Louisville.

- 1992 An Archaeological Reconnaissance of a Proposed 7.5 Acre Borrow Area Adjacent to the Morgan/Dripping Springs Ranges at the Fort Knox Military Reservation, Hardin County, Kentucky. U.S. Army Corps of Engineers, Louisville.

McGrain, Preston, and James C. Currens

- 1978 Topography of Kentucky. Kentucky Geological Survey Series X. Special Publication 25. University of Kentucky, Lexington.

Mocas, Stephen T.

- 1993 A Phase I Archeological Survey of a Proposed Construction/Demolition Debris Landfill and Borrow Pit on the Fort Knox Military Reservation, Hardin County, Kentucky. Directorate of Public Works, Fort Knox.

O'Malley, Nancy, Boyce Driskell, Julie Riesenweber, and  
Richard Levy

- 1980 Stage I Archaeological Investigations at Fort Knox, Kentucky. Archaeological Report No. 16, Department of Anthropology, University of Kentucky, Lexington.

Schenian, Pamela A., and Stephen T. Mocas

- 1994 A Phase I Archaeological Survey of the Fall 1994 Rehab Areas in Training Areas 9 and 10 on the Fort Knox Military Reservation, Meade County, Kentucky. Directorate of Public Works, Fort Knox, Kentucky.

Sussenbach, Tom

- 1990 Archaeological Report: Negative Find/Isolated Finds Survey: Weather Radar Installation. Program for Cultural Resource Assessment, University of Kentucky, Lexington.

United States Geological Survey

- 1991 Fort Knox, Kentucky-Indiana, 7.5 Minute Topographic Quadrangle.

APPENDIX A.  
RESUME OF PRINCIPAL INVESTIGATOR

Pamela A. Schenian  
Staff Archeologist and Project Principal Investigator

Office Address: Directorate of Public Works  
ATTN: ATZK-DPW (Schenian)  
U.S. Army Armor Center and Fort Knox  
Fort Knox, Kentucky 40121-5000  
Phone: (502) 624-6581

Date and Place of Birth: January 1, 1959; Waukesha, WI.

Present Position: J.M. Waller & Associates/Fort Knox Contract Staff Archaeologist

Education:

A.B.D. in Anthropology, Northwestern University, 1984.  
M.A. in Anthropology, Northwestern University, 1982.  
A.B. in Anthropology, Bryn Mawr College, 1980.

Previous Employment:

Senior Staff Archeologist, Archeology Service Center, Department of Sociology, Anthropology, and Social Work, Murray State University, Murray, KY, November 1991-June 1993; Staff Archeologist, November 1983-November 1991.

Southern Illinois University, Carbondale, IL: Field Technician, November-December 1985, September-October 1984.

Illinois State Museum Society, Springfield, IL: Field Assistant II (Supervisor), summer 1983; Field Technician, summer 1981.

Center for American Archeology, Kampsville, IL: Field Technician, summer 1982.

Department of Anthropology, Northwestern University, Evanston, IL: Teaching Assistant, 1981-82 academic year.

Great Lakes Archeological Research Center, Milwaukee, WI: Field Technician, summer 1979.

Field Research Experience:

Field experience on prehistoric and historic archeological projects in the states of Illinois, Indiana, Kentucky, New Jersey, South Dakota, Tennessee, and Wisconsin, 1979-present.

Professional Publications, Reports, Papers and Manuscripts:  
84 CRM contract reports on projects in Indiana, Kentucky, and Tennessee.

1 Homicide site excavation contract report prepared in lieu of court testimony in Illinois.

7 Papers presented at professional conferences.

5 Publications, 1 in press.

Doctoral candidacy qualifying paper: "A Theory of Individual Style Variation for Archeological Studies".

Manuscript submitted in partial fulfillment of the M.A.

requirements: "Models of Environmental-Cultural Relationships: Testing with Archeological Evidence".